

AD: Review of eRHIC talks

June 4, 2004

Raju: Physics of Electron Ion Collider

Richard: Realization of eRHIC

Abhay: Measurement with eRHIC

Rolf Ent (Jlab): ELIC Plans and Ideas

Physics of EIC: Raju

- Introduction to DIS kinematics
- History of DIS and some highlights
 - Scaling violations, Asymptotic freedom, Renormalization Group evolution
- Main goals of EIC: unpol. & pol ep and eA
 - List of topics: Unpol ep, pol.ep and eA physics topics
- Comments on LHC /PDF uncertainties
- Color Glass Condensate, novel regime of QCD evolution at high energy
- Concluding remarks

Realization of eRHIC: Richard M.

- Why is it important and timely to study the partonic origins of matter?
- Why a high luminosity collider?
- Why now?
- Why eRHIC?
- eRHIC Conceptual Design
- Costs
- Schedule

Measurements with eRHIC: Abhay

- Collider vs. Fixed target (advantages)
- eRHIC kinematics (momenta and angular distributions) of electrons & quarks
- Detector Requirements: 4p --> what?where?
 - A few concepts being considered
 - Measurement Examples:
 - Unpolarized measurement: F2,FL
 - Spin structure: g1,g5,photon spin structure,jets and related studies
 - Nuclear medium: e-A, low x statistical accuracy
- A very forward detector: A. Caldwell et al.
 - Detector idea, some example measurement accuracies
- Pressing questions and near and long term plans

Electron Light Ion Collider: Rolf Ent (Jlab)

- What is going on at Jlab now?
- Open questions for the next decade
- Design idea and concept for ELIC
- R&D Issues, open questions, Cost(?) and Time(?) line